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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,575	05/01/2001	William Joseph Quinn	03-GP-8036	6756
23465	7590	06/25/2004	EXAMINER	
JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			CRAIG, DWIN M	
			ART UNIT	PAPER NUMBER
			2123	
DATE MAILED: 06/25/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,575

Applicant(s)

QUINN, WILLIAM JOSEPH

Examiner

Dwin M Craig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5-1-2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 1-50 have been presented for Examination. Claims 1-50 have been Examined and rejected.

#### Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal Drawings will be required when the application is allowed.

#### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. **Claims 1-50** are rejected under 35 U.S.C. 102(a) as being clearly anticipated by **Klapper et al. U.S. Patent 6,448,982.**

3.1 As regards independent **Claims 1 and 24** the *Klapper et al.* reference teaches a method for cause and effect logic implementation (**Figures 1, 12 & 13, Col. 1 Lines 58-62**), defining a formal methodology for specification of functional requirements (**Figures 4-11**), for a target system based upon Cause and Effect notation and function blocks (**Figure 3, 12, 13 & 14**), employing a computer-aided specification tool-set to support capture and validation of functional requirements (**Figures 2, 4-11, Col. 3 Lines 40-67, Col. 4 Lines 1-2**); and employing a software module to directly execute Cause and Effect application logic (**Figures 12 & 13**).

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3.2 As regards independent **Claim 47** the *Klapper et al.* reference teaches a database comprising data related to cause and effect notation (**Col. 1 Lines 39-56**), and data relating to at least one function block (**Figure 14 Item 150**).

3.3 As regards dependent **Claims 2-23 & 25-46** the *Klapper et al.* reference teaches, *for example*, defining hardware requirements and plant control areas (**Figure 6, Col. 10 Lines 65-67, Col. 11 Lines 1-3**), PLC systems (**Col. 3 Lines 40-67, Col. 4 Lines 1-2**), defining logic for device control (**Figure 5-11**), employing application software to develop a database of logic symbols and Cause and Effect control blocks (**Figures 12 & 13, Col. 2 Lines 44-58**), and for Claims 23 & 46 see (**Figure 1 and Col. 5 Lines 42-65**).

3.4 As regards dependent **Claims 48-50** the *Klapper et al.* reference teaches an HMI (**Figure 2 Item 10**), an HMI icon (**Figure 6 Item 56**), Boolean (**Figure 1 "Intersection"**).

#### Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M Craig whose telephone number is 703 305-7150. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMC



KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER

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